

**Reference Leakage Device for Leak Sniffer Detector**

**PATENT CLAIMS**

1. Reference leakage device (14) for leak sniffer detector (1) equipped with a sniffing tip (8) and a control unit (6). Said reference leakage device (14) comprises a gas reservoir (31) and a constriction (33) wherefrom there is released a specific amount of test gas, at least during calibration. The reference leakage device (14)<sup>1)</sup> is characterised in that in the constricted zone (33) there is located a sensor (42) detecting the approach of the sniffing tip and in that said device includes means for transmitting signals to the control unit (6) of the leak detector.
2. Facility in accordance with claim 1, **wherein** the transmission means are implemented by way of a wire link (48).
3. Facility in accordance with claim 1, **wherein** the transmission means allow for a wireless transmission, consisting on the side of the reference leakage device (14) of at least a transmitter.
4. Facility in accordance with one of the claims 1 to 3, **wherein** the constriction (33) is a diaphragm (34).

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<sup>1)</sup> **Translator's note:** The German text states "1" here whereas "14" would be more in line with the drawing figures and the remaining text. Therefore the "14" has been assumed for the translation.

5. Facility in accordance with one of the claims 1 to 4, wherein it is equipped with a temperature sensor (51)<sup>2)</sup>.

6. Facility in accordance with one of the claims 1 to 5, wherein it is equipped with a pipe connection (21) which protrudes through the housing (15)<sup>3)</sup> to the outside exhibiting an opening (22) suited for introducing the intake tip (8) of a sniffer gun (7).

7. Facility in accordance with one of the claims 1 to 6, wherein the gas reservoir is contained in a pressure vessel (31), where a housing (32) is provided in which the pressure vessel (31) is accommodated and where the constriction (33) is a component of the housing (32).

8. Facility in accordance with claim 7, wherein the pressure vessel (31) and the housing (32) are cylindrical in shape, where the constriction (33) is located in the area of one of the two face sides of the housing (32) and where the face side of the housing (32) opposite the constriction (33) is equipped with a releasable cap (35), said cap being preferably suitable for unscrewing.

9. Facility in accordance with claim 8, wherein the housing (32) is equipped in the area of the face side opposite the cap (35) with a flange (37) protruding towards the inside which supports the pressure vessel (31) containing the gas reservoir.

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<sup>2)</sup> **Translator's note:** The German text states "23" here whereas "51" would be more in line with the drawing figures and the remaining text. Therefore the "51" has been assumed for the translation.

<sup>3)</sup> **Translator's note:** The German text states "2" here whereas "15" would be more in line with the drawing figures and the remaining text. Therefore the "15" has been assumed for the translation.

10. Facility in accordance with claim 8 or 9, **wherein** the pressure vessel (31) is equipped in the area of the cap (35) with a ball valve (38) and where the cap (35) carries a pin (39) which opens the valve (38) upon screwing on the cap (35).

11. Facility in accordance with claim 8 or 9, **wherein** the cap (35) carries a spike pointing towards the inside which upon screwing on the cap (35) penetrates the pressure vessel (31).

12. Facility in accordance with claim 8, 9, 10 or 11, **wherein** the rim of the cap (35) is equipped in the area of its upper side with a bore (40).

13. Facility in accordance with claim 9 and one of the other claims, **wherein** the flange (37) carries the diaphragm (34).

14. Facility in accordance with one of the above claims, **wherein** it is, moreover, equipped with an EEPROM in which gas type, production date, filling quantity and/or leak rate have been saved.

15. Facility in accordance with claim 1, 5 and/or 14, **wherein** the means for transmitting the signals of the sensor (42) are so designed that they are suited also for transmitting the signals supplied by the temperature sensor (51) and/or the EEPROM (52).